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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,855	11/25/2003	Phillip A. Young	X-1277 US	8033
24309	7590	12/14/2005	EXAMINER	
XILINX, INC ATTN: LEGAL DEPARTMENT 2100 LOGIC DR SAN JOSE, CA 95124			NGUYEN, HIEN N	
			ART UNIT	PAPER NUMBER
			2824	

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

5/1

Office Action Summary	Application No. 10/721,855	Applicant(s) YOUNG ET AL.	
	Examiner Hien N. Nguyen	Art Unit 2824	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on The Election REsponse filed on 10/28/05.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 13-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected. --
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/25/05 are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Search Report.</u> |

DETAILED ACTION

Election/Restrictions

1. Claims 13-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/28/05.
2. Claims 1-12 are presented for examining.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 10, lines 1-2, the recitation of "a delay chain" is indefinite since it does not have a clear meaning. If the applicant wants to refer to "a chain of delay commands" or "a delay command" then an appropriate term or recitation should be used. The examiner could not find an approximate meaning for this recitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 7-12 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent No. 5,982,683 issue to Watson et al.

Watson figure 9B show a configuration circuit for a programmable logic device (typical PLD or CLPD, column 9, lines 65-67) comprising:

- a non-volatile memory cell (NVBIT),

- a latch circuit (950) coupled to a logic core (not shown, but the output of 908 is connected to the logic circuit, i.e. core) of the programmable logic device, and

- a circuit coupled to the non-volatile memory cell and the latch circuit, wherein the circuit includes (*here no patentable wait is given to "initialization" term since any circuit that is set up by a command to initiate a sequence is considered as an initialization circuit*) includes :

 - a first switch element (926) configured to selectively couple the latch circuit to a first voltage supply terminal (here is terminal 922), and

 - a second switch element (942) configured to selectively couple the latch circuit to the non-volatile memory cell (NVBIT).

Regarding claim 2, the first switch is a p-channel transistor and the terminal (926) is coupled to a positive power supply (column 10, lines 48-52).

Regarding claim 3, the second switch is a n-channel transistor and the terminal (942) is coupled to a positive power supply (column 10, lines 48-52).

Regarding claims 4 and 12, the non-volatile cell is a memory transistor having a floating gate (see column 10, lines 25-30) and electrically erasable memory cell.

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Regarding claim 5, the means for programming and erasing limitation is disclosed in column 10, lines 20-25.

Regarding claim 7, the latch (950) is a pair of cross-coupled inverters transistors.

Regarding claim 8, the first access transistor coupled to the latch circuit (950) is transistor (924).

Regarding claim 9, the second access transistor coupled to the latch circuit (950) is transistor (938).

Regarding claims 10 and 11, as best understood, the first switch and second switch are controlled by a set of control signal. The control signal for the first switch is (PULSE) and the control signal for the second switch is (SRPROGHV).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watson et al. in view of Sansbury (U.S. Patent No. 6,243,296).

What lacks in Watson is the disclosure of a structure of a compact erasable memory cell comprising an access transistor, a tunnel diode coupled to the access transistor and the floating gate and a capacitor structure coupled to the floating gate.

Sansbury in the same art of endeavor, PLD technology, disclose a compact structure as above as shown in figures 5a and column 6, lines 13-20.

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Therefore it would have been obvious at the time of the invention was made to a person having ordinary skill in the art to employ the structure of the compact cell as taught by Sansbury in the configuration of a programmable logic circuit in order to enhance the reliability and life of a memory cell because of a write control line (to the floating gate) is connected to a tunnel diode.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Madurawe (5,548,552), Gowni (5,572,715) and Chiang et al. (6,172,519) are various configuration of programmable logic devices and are cited as of interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien N. Nguyen whose telephone number is (571) 272-1879. The examiner can normally be reached on Monday through Thursday 9:30 AM to 7:00 PM..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

H. Nguyen 
December 11, 2005



RICHARD ELMS
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